**INTRODUCTION :-**

**\*\*Step 1: Set Up Your Development Environment\*\***

**1. Install VS Code: Download and install Visual Studio Code.**

**2. Install Python: Ensure Python is installed on your machine.**

**3. Install Python Extension for VS Code: Open VS Code, click the Extensions icon, search for "Python" and install the extension.**

**\*\*Step 2: Create a New Python File\*\***

**1. Open VS Code.**

**2. Create a new file by going to `File > New File` or press `Ctrl+N`.**

**3. Save the file as `bmi\_calculator.py` by going to `File > Save As`.**

**\*\*Step 3: Write the BMI Calculator Code\*\***

**```python**

**def calculate\_bmi(weight, height):**

**try:**

**weight = float(weight)**

**height = float(height)**

**if weight <= 0 or height <= 0:**

**raise ValueError("Weight and height must be positive numbers.")**

**bmi = weight / (height \*\* 2)**

**return bmi**

**except ValueError as e:**

**print(f"Invalid input: {e}")**

**return None**

**def categorize\_bmi(bmi):**

**if bmi is None:**

**return "Unable to categorize BMI due to invalid input."**

**elif bmi < 18.5:**

**return "Underweight"**

**elif 18.5 <= bmi < 24.9:**

**return "Normal weight"**

**elif 25 <= bmi < 29.9:**

**return "Overweight"**

**else:**

**return "Obesity"**

**def main():**

**print("BMI Calculator")**

**weight = input("Enter weight in kilograms: ")**

**height = input("Enter height in meters: ")**

**bmi = calculate\_bmi(weight, height)**

**if bmi is not None:**

**print(f"Your BMI is: {bmi:.2f}")**

**print(f"Category: {categorize\_bmi(bmi)}")**

**if \_\_name\_\_ == "\_\_main\_\_":**

**main()**

**```**

**\*\*Step 4: Run the Code\*\***

**1. Open the terminal in VS Code (`View > Terminal` or press `` ` ``).**

**2. Navigate to the folder where you saved the `bmi\_calculator.py` file.**

**3. Run the script with:**

**`python bmi\_calculator.py`**

**\*\*Step 5: Test Your Program\*\***

**- Test the program with valid inputs (e.g., weight: 70 kg, height: 1.75 m).**

**- Test with invalid inputs (e.g., negative numbers or non-numeric values).**

**\*\*Step 6: Optional Enhancements\*\***

**- Improve user experience by adding clearer messages.**

**- Optionally create a graphical version using Tkinter for a GUI.**

**\*\*Step 7: Document the Project\*\***

**Create a `README.md` file:**

**```**

**# BMI Calculator**

**## Description**

**A command-line BMI calculator written in Python. It prompts the user for weight (in kilograms) and height (in meters), calculates the BMI, and categorizes it.**

**## Key Features**

**- User Input Validation**

**- Accurate BMI Calculation**

**- BMI Categorization**

**## How to Run**

**1. Ensure Python is installed.**

**2. Save the code as `bmi\_calculator.py`.**

**3. Open a terminal and navigate to the file.**

**4. Run with: `python bmi\_calculator.py`.**

**## Example**

**```**

**Enter weight in kilograms: 70**

**Enter height in meters: 1.75**

**Your BMI is: 22.86**

**Category: Normal weight**